

**ABSTRACT**

There is described a multi-layer printed circuit board and a method of installing it. The circuit board includes a first signal layer formed on its obverse surface; a ground layer arranged at a position next to the first signal layer; an electronic power source layer arranged at a position next to the ground layer; and a second signal layer formed on its reverse surface. The first and second patterns are formed around peripheral areas of the first and second signal layers, respectively. The first ground pattern and the second ground pattern are electrically coupled to each other by plural through holes, and the multi-layer printed circuit board is installed on an electro-conductive housing in such a manner that a substantially whole area of the second ground pattern electrically contacts a mounting area of the electro-conductive housing, the mounting area being an electro-conductive area continuously coupled to the electro-conductive housing.